



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,610	07/25/2001	Symon G. Erskine	P51113	5451

20462 7590 04/15/2003

SMITHKLINE BEECHAM CORPORATION
CORPORATE INTELLECTUAL PROPERTY-US, UW2220
P. O. BOX 1539
KING OF PRUSSIA, PA 19406-0939

EXAMINER

WEBER, JON P

ART UNIT PAPER NUMBER

1651

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED

JUN 17 2003

OFFICE OF PETITIONS

RECEIVED
GLAXOSMITHKLINE
2003 APR 21 A 10:36



Office Action Summary

Application No.	Applicant(s)	
09/912,610	ERSKINE ET AL.	
Examiner	Art Unit	
Jon P Weber, Ph.D.	1651	

The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 19-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-18 and 42-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

RECEIVED

JUN 17 2003

OFFICE OF PETITIONS

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Status of the Claims

Claims 1-46 have been presented for examination.

Election/Restrictions

Applicant's election without traverse of the species "SB-208717" in Paper No. 10, filed 27 January 2003 is acknowledged. Applicant's previous election effectively **without** traverse of Group I, claims 1-2, 4-18 and 42-46 in Paper No. 7, filed 29 October 2002 remains in force. Claims 3 and 19-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Objections

Claim 42 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. This claim adds no further limitations to claim 2.

Claim 44 is objected to because of the following informalities: The conjunction "and" is missing from the last phrase in line three. Appropriate correction is required.

Claim 45 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. This claim adds no further limitations to claim 44.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-6, 11-16 and 44-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 6 present an improper Markush group. A Markush group is a closed set of items, whereas partway through each of the claims is recited "and further including, but not limited to,".

Claim 11 recites the limitation "wherein contact ..." in line 2. There is insufficient antecedent basis for this limitation in the claim. The base claim, 1, is a method of modulating enzyme activity, not a method of killing a pathogen carrying the enzyme. A claim such as this should be written in independent form with a different preamble drawn to the desired invention.

Claim 44 recites "pathogenic enzyme" which is repugnant to the art. The enzyme itself is not pathogenic, the organism is.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 7-15 and 44-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Wessel et al. (1999) or Fortune et al. (1998).

Wessel et al. (1999) disclose that ICRF-187 (bisdioxopiperazine) inhibits topoisomerase II (EC 5.99.1.3) without stabilizing the cleaved form as a covalent complex. The mechanism by locking the clamp closed and inhibiting the ATPase function is different from that proposed herein, but the mechanism is not relevant to the broad claims instantly rejected.

Claims 1-2, 7-15 and 42-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Fortune et al. (1998).

Fortune et al. (1998) disclose that merbarone inhibits topoisomerase II by blocking DNA cleavage. Its binding to the enzyme does not impair DNA binding to the enzyme, implying a stable ternary and non-covalent complex (see also, Fig. 12).

Claims 1-2, 4-18, and 42-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Davies et al. (WO 00/21952).

Davies et al. (WO 00/21952) disclose compounds with the structure of compound I therein as antibacterials. Although the mechanism of action is not set forth in Davies, the

Application/Control Number:
09/912,610
Art Unit: 1651

Page 5

compounds are identical those instantly claimed (see claim 16, for example), and accordingly inherently inhibit by the same mechanism as instantly claimed.

Claims 1-2, 4-18, and 42-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Coates et al. (WO 99/37635) or Hatton et al. (WO 00/21948).

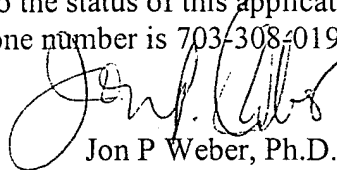
Coates et al. (WO 99/37635) and Hatton et al. (WO 00/21948) both disclose compounds with the structure of compound I therein as antibacterials. Although the mechanism of action is not set forth in Davies, the compounds are identical those instantly claimed (see claim 17, for example), and accordingly inherently inhibit by the same mechanism as instantly claimed.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon P Weber, Ph.D. whose telephone number is 703-308-4015. The examiner can normally be reached on daily, off 1st Fri, 9/5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on 703-308-4743. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


Jon P Weber, Ph.D.
Primary Examiner
Art Unit 1651

JPW
April 10, 2003

RECEIVED

JUN 17 2003

OFFICE OF PETITIONS